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THE STRATEGIC ENERGY IMPERATIVE

A MAJORITY STAFF REPORT

PREPARED FOR THE USE OF THE

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LETTER OF TRANSMITTAL

UNITED STATES SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC, September 15, 2020.

DEAR COLLEAGUES: Energy is the foundation of our economy and our society. It is, all at once, a finished product, a feedstock, a raw material, an input, an output, a value-added good, a natural resource, a tradable commodity, and a precious asset. It is critical infrastructure and emergency reserves, financial collateral and competitive exports, and a source of high-paying and high-skilled jobs. It helps us project military force, enables other sectors of the economy, and provides heat in the winter and cooling in the summer.

As the senior Republican member of the Committee for more than a decade, I view the centrality of energy as a reason to formulate energy policy in strategic terms. Just as lifting the ban on oil exports reshaped global energy markets, so will investing in zero-emission advanced nuclear technology change the game. The most optimistic alternative scenarios of our energy future depend on taking action today.

I call your attention to the findings and recommendations contained in this report, prepared by the Committee's Majority Staff. It makes the case that tools of "strategic energy" are imperative during this time of geopolitical competition, exacerbated by the COVID-19 pandemic and its associated economic distress.

Sincerely,

LISA MURKOWSKI,
Chairman.

THE STRATEGIC ENERGY IMPERATIVE

PROLOGUE

On February 18, 2020, U.S. Government representatives met in Tokyo with officials from a major Japanese trading company. This company boasts of energy projects across Asia and invests in major U.S. energy-related projects. Its multibillion-dollar book of business spans commodities of all kinds. The American delegation asked these Japanese energy businessmen whether they had ever competed against the United States.

The answer was simple and clear: "No."

INTRODUCTION

As Chairman (since 2015) and Ranking Member (from 2009 to 2014) of the Senate Energy and Natural Resources Committee, Senator Lisa Murkowski has built the case for developing national energy policy through a strategic lens.[1] The State of Alaska's experience—with innovative development techniques and technology, oil and gas exports, and critical pipeline infrastructure—presaged many of the major issues associated with the present century's North American energy renaissance.[2]

Chief among these issues are the role of the Federal Government in domestic energy markets and the wisdom of enabling U.S. engagement in global energy markets through commodity trade. To assist in her oversight duties, Senator Murkowski directed Committee senior professional staff member Tristan Abbey to visit Australia and Japan in February 2020. The purpose of the staff delegation, supported by the Department of State and the Congressional Research Service, was to examine the progress and efficacy of "strategic energy partnerships" signed between the United States and key U.S. allies. Two executive agreements, in particular, served as the foci for the trip:

—the Japan-United States Strategic Energy Partnership, announced on November 6, 2017; and

—the Australia-U.S. Strategic Partnership on Energy in the Indo-Pacific, announced on February 23, 2018.[3]

This report summarizes the findings of the staff delegation's oversight study. Its recommendations also reflect events that transpired after the trip, including the oil price dispute between Russia and Saudi Arabia, the coronavirus disease (COVID-19) pandemic, actions proposed and taken by the Trump Administration, and the Senate passage of major Committee-originated legislation.

BACKGROUND

The United States in Global Energy Markets

In 2019, the United States switched its status from "net energy importer" to "net energy exporter," according to the U.S. Energy Information Administration (EIA).[4] The nation accomplished this feat of basic accounting economics by producing more energy, importing less energy, and exporting more energy.

As recently as its *Annual Energy Outlook (AEO) 2014*, EIA projected in its Reference Case that exports would not exceed imports at any point through the year 2040. This projection steadily evolved in an optimistic direction. In *AEO 2015*, EIA projected a long period of oscillation between net imports and net exports from 2029 to 2040. In *AEO 2016*, EIA projected sustained net exports, without oscillation, from 2029 to 2040. In *AEO 2017*, EIA projected net exports from 2026 to 2047, switching to net imports until 2050, the end of a new and longer projection period. In *AEO 2018*, EIA projected sustained net exports from 2022 to 2050. In *AEO 2019* and *AEO 2020*, EIA projected sustained net exports from 2020 to 2050.[5]

Essentially, the most widely referenced energy futures scenario (i.e., the EIA Reference Case) did not project an imminent switch to net energy exports until the approximate year it occurred. This curious situation in no way should be interpreted as a criticism of the EIA. Projection is not prediction. Rather, the point illustrates the intensity and depth of the American energy expansion, which has caught the world by surprise.

Committee Activity

Though chiefly concerned with domestic policy, the Committee has held numerous hearings on the topic of the United States in global energy markets.[6] Dr. Fatih Birol, executive director of the International Energy Agency, has presented the *World Energy Outlook* to the Committee on three occasions: in January 2018, February 2019, and March 2020. The Committee held hearings on general energy and resource markets in April 2015, January 2016, and February 2019; on evolving natural gas markets in January 2015, September 2018, and July 2019; on global oil markets in December 2015 and July 2018; on U.S. crude oil exports in January 2014 and March 2015; on North American resources in July 2017; and U.S. leadership in nuclear energy in May 2016 and April 2019; on critical minerals, which are inextricably linked to energy markets, in January 2014, May 2015, March 2017, July 2018, May 2019, and September 2019; and on the Strategic Petroleum Reserve (SPR) in October 2015 and October 2019.[7]

The Committee has developed key pieces of legislation related to enhancing the U.S. position in global energy markets. In January 2015, the Senate passed the bipartisan Keystone XL Pipeline Approval Act (S. 1, 114th Cong. (as passed by Senate, Jan. 29, 2015)), which would have provided federal approval to a significant oil pipeline project crossing the border with Canada; it was vetoed by President Obama. Chairman Murkowski championed the legislative repeal of the de facto ban on U.S. crude oil exports, which was achieved December 2015 (Consolidated Appropriations Act, 2016,

Pub. L. No. 114–113, 129 Stat. 2242 (2015)). In September 2018, the Nuclear Energy Innovation Capabilities Act (Pub. L. No. 115–248, 132 Stat. 3154 (2018)) was enacted into law.

In April 2016, the Senate passed the Energy Policy Modernization Act (EPMA; S. 2012, 114th Cong. (as passed by Senate, Apr. 20, 2016)). This bipartisan bill included provisions §§ 2201–2203 (*Id.* at §§ 2201–2203) to expedite Department of Energy (DOE) authorizations to export liquefied natural gas (LNG) from the United States, publicly disclose the destinations of those cargoes, and foster greater collaboration on energy data with Mexico and Canada. As passed by the Committee, EPMA included a provision to require DOE to notify Congress prior to any future test sales from the SPR and provided for modernization of the SPR itself. The test sale provision was enacted into law in November 2015 as part of the Bipartisan Budget Act (Pub. L. No. 114–74, 129 Stat. 584, 588 (2015)), which also created the SPR's Energy Security and Infrastructure Modernization Fund. In August 2019, the Committee passed the Small Scale LNG Access Act of 2019 (S. 816, 116th Cong. (as reported by S. Comm. on Energy and Natural Resources, July 16, 2019)).

Most recently, the Committee passed the bipartisan American Energy Innovation Act (S. 2657, 116th Cong. (as reported by S. Comm. on Energy and Natural Resources, Nov. 19, 2019)), which is pending on the Senate calendar. This bill includes provisions from the Nuclear Energy Leadership Act (S. 903, 116th Cong. (2019)), which passed the Senate in July 2020 as an amendment to the National Defense Authorization Act for Fiscal Year 2021 (S. 4049, 116th Cong. 2020)), and from the American Mineral Security Act (S. 1317, 116th Cong. (2019)).

OVERSIGHT STUDY

"Strategic energy" is defined in this report as the imperative for the United States to enhance national economic security by ensuring that American energy thrives in global markets.[8]

Strategic Energy Partnerships

There is no formal definition of "strategic energy partnership." It is essentially a memorandum of understanding, typically unfunded, generally non-binding, undeniably optimistic, and highly principled. (Such agreements are reminiscent of bilateral "strategic energy dialogues" between the United States and a range of nations, including Brazil, Egypt, the United Arab Emirates, Ukraine, Poland, Saudi Arabia, and India. Both partnerships and dialogues tend to be broader than memoranda of understanding and/or cooperation focused on energy-related research and development.)[9] The administration in office at any particular time determines the extent to which the United States will "engage" with a specific partnership. Some whither, some prosper, and some simply disappear.[10]

In sum, strategic energy partnerships are malleable instruments of the executive branch, not mandated creatures of statute.

The staff delegation traveled to conduct oversight on two such partnerships: (1) the Japan-United States Strategic Energy Partnership, signed on November 6, 2017; and (2) the Australia-U.S.

Strategic Partnership on Energy in the Indo-Pacific, signed on February 23, 2018.[11]

Itinerary

In Tokyo (on February 17–18, 2020), the staff delegation met with representatives of the Ministry of Economy, Trade and Industry; the Agency for Natural Resources and Energy; the Japan International Cooperation Agency; the Japan Bank for International Cooperation; the New Energy and Industrial Technology Development Organization; the Ministry of Foreign Affairs; the Japan Oil, Gas and Metals National Corporation; and several commercial and academic entities.

In Canberra (on February 20–21, 2020), the staff delegation met with representatives of the Department of the Prime Minister and Cabinet; the Department of Foreign Affairs and Trade; Department of Industry, Science, Energy, and Resources; Geoscience Australia, the Department of the Treasury; the Department of Defence; the Office of National Intelligence; and several commercial entities.

FINDINGS

This oversight study supports the following findings:

1. *Strategic energy partnerships, in practice, fall short of their theoretical potential.* Despite robust politico-economic foundations anchored by enduring security alliances, U.S. strategic energy partnerships with Australia and Japan exist primarily in the ethereal form of papers and conferences. Officials could not identify a significant project developed under either agreement. The recent bilateral agreement allowing Australia to purchase 1.5 million barrels of U.S. crude oil for storage in the Strategic Petroleum Reserve, in order to comply with its International Energy Agency obligations, is a positive development, but is mostly an accounting matter.[12] Prospective projects with Japan in Southeast Asia, including fostering "rules-based electricity markets" in the Lower Mekong region and the prospect of a regasification terminal to facilitate LNG imports into Vietnam, remain aspirational and speculative.
2. *The dearth of concrete results emerging from strategic energy partnerships can be attributed primarily to an imbalance between lofty aspirational vision and paltry functional resources.* Federal agencies have few tools to assist U.S. energy companies with accessing global markets. Commercial advocacy, feasibility studies, market analysis, and reverse trade missions are useful instruments, but lack the heft of direct lending, loan guarantees, and insurance that can be provided by export credit agencies and development finance institutions. Though most often unfavorably compared to China's well-resourced Belt and Road Initiative, constrained U.S. official financing capabilities are also surpassed by those of Italy, Germany, India, the United Kingdom, France, and South Korea.[13]
3. *Congressional action is required to operationalize "strategic energy" as a concept and to ensure the success of strategic en-*

ergy partnerships. Executive branch agencies are largely favorably disposed, in theory, to advancing strategic energy. In practice, however, there exists a fundamental tension between minimizing risks and maximizing returns, on the one hand, and undertaking strategic projects that present greater risk over a longer period of time, on the other. Legislative re-direction will be required. Congress has led the way before. For example, Chairman Murkowski's efforts to repeal the outdated prohibition on exporting U.S. crude oil enabled the record-breaking levels of oil exports described in the background section of this report, building on incremental executive actions allowing exports of processed condensate.[14] Bipartisan and bicameral pressure on the U.S. International Development Finance Corporation succeeded in reversing its outdated policy prohibiting support to civil nuclear energy projects, following enactment into law of a provision allowing it to support energy projects in upper-middle-income and high-income Eurasian economies (beyond its low-income remit).[15] Even the Department of Energy's new rule to expedite small-scale LNG exports also emerged first in Congress.[16]

RECOMMENDATIONS

Informed by the findings described above, the oversight study also recommends the following legislative and executive actions:

Legislative Actions

1. Pass into law the Nuclear Energy Leadership Act (S. 903), the American Mineral Security Act (S. 1317), and the American Energy Innovation Act (S. 2657).
2. Codify in statute that the U.S. International Development Finance Corporation may support civil nuclear energy projects (and consider codifying a permanent national security exception to permit support for civil nuclear and critical mineral projects not strictly located in low-income countries) and that the Department of Energy may expedite authorizations to export small volumes of natural gas.[17]
3. Reconcile mandatory drawdowns from the Strategic Petroleum Reserve with global economic slowdown and persistent threats to energy security, and prioritize funding for maintenance and modernization of the reserve's infrastructure.
4. Reconfigure the federal apparatus surrounding export credits, including by repealing the Department of Treasury's statutory mandate to negotiate an end to export credits and by facilitating Export-Import Bank financing of strategic energy projects.[18]
5. Expand federal efforts to address critical minerals scarcity and import dependence, including by amending the law to allow the Department of Energy's Loan Guarantee Program to support critical minerals projects in refining and recycling and by adopting the June 2019 recommendations published in a Department of Commerce report.[19]

Executive Actions

6. Pursue multiple civil nuclear energy cooperation ("123") agreements concurrently and deemphasize nuclear cooperation memoranda of understanding (NCMOUs), which carry essentially zero force of law.[20]
7. Deprioritize discussions of trilateral (between the United States, Australia, and Japan) and quadrilateral partnerships (with India) until bilateral agreements bear fruit.
8. Recognize that U.S. and Australian energy producers and exporters are competing in the same markets and focus the bilateral partnership on producing and refining critical minerals for energy purposes.
9. Recognize that U.S. and Japanese engineering, technology, and construction firms are competing in the same markets and ensure the bilateral partnership consists of more than U.S.-origin molecules being piped through Japanese-constructed infrastructure.
10. Prioritize on-budget and on-schedule modernization of the Strategic Petroleum Reserve.

CONCLUSION

Two significant events occurred in the days immediately following the staff delegation trip to Japan and Australia: the onset of the oil pricing dispute between Russia and Saudi Arabia and the pandemic declaration in March 2020. Both events matter significantly to "strategic energy" because the former increased global energy supply and the latter decreased global energy demand. The twin-shock of these events was historic and threatened U.S. energy security. A strong domestic energy industry is the *sine qua non* of a nation that is prepared to lead strategic energy partnerships.

Chairman Murkowski joined with Senate colleagues in successfully pressing for an end to the Saudi-Russian oil pricing dispute.[21] The Committee recently held hearings on the impact of COVID-19 on the energy industry (June 16, 2020), on mineral supply chains (June 24, 2020), on U.S. territories (June 30, 2020), and on users of public lands, forests, and national parks (July 23, 2020).[22]

The Department of the Treasury and Department of Energy separately proposed purchasing crude oil to refill the Strategic Petroleum Reserve as part of the COVID-19 economic stimulus package. Absent appropriations to purchase significant quantities of crude oil, DOE's Office of Fossil Energy was limited to two creative and commendable initiatives: (1) providing temporary storage to U.S. producers facing oversaturated storage; and (2) purchasing a small quantity of crude oil by repurposing existing funds.[23] Congress may consider clarifying SPR-related authorities to avoid future confusion over the limits of DOE's crude oil remit.

Another DOE proposal to create a special lending facility under the CARES Act to support U.S. energy companies ultimately was not adopted by the Treasury Department. Such companies are eligible for CARES Act financing under the same criteria as companies in other sectors of the economy, as Chairman Murkowski insisted in a letter to Secretary of the Treasury Steven Mnuchin.[24]

Though both events significantly and deleteriously impacted global energy markets, they do not alter the findings and recommendations of this report. Strategic energy partnerships should still be pursued by the United States even in a world of decreased energy demand and slower economic activity.

In testimony before the Committee in March 2020, Dr. Birol described the United States as "a cornerstone of global energy security." Despite the onset of the COVID-19 crisis, Dr. Birol concluded his opening remarks as follows:

> With its boundless human ingenuity, rich resources and track record of successful innovation and commercialization of new technologies, the United States is extremely well placed to continue to lead the world in the development and deployment of energy technologies that can help ensure a secure, affordable and sustainable supply of energy for decades to come.[25]

The oversight study conducted by the Committee staff delegation to Japan and Australia found bilateral strategic energy partnerships to hold enormous promise. Unfortunately, they are presently under-delivering. By considering the findings of this report and adopting its recommendations, the legislative and executive branches would help crystallize strategic energy partnerships into productive agreements that build tangible projects and secure durable trading relationships, while complementing efforts to safeguard the environment and reduce carbon dioxide emissions. The true test of these partnerships will be whether or not they leave their mark on global energy markets in the decades ahead.

ACKNOWLEDGMENTS

Committee staff would like to thank all Japanese and Australian representatives for their time and insights. Particular gratitude is due to the Department of State for its support of the delegation's travel, especially Justin Tull of Embassy Tokyo and Patrick Koucheravy and Hugh Green of Embassy Canberra. In Washington, sustained and direct support provided by Phillip Brown and Michael Ratner of the Congressional Research Service was essential and invaluable.

In the United States, subject-matter experts—too many to name—at the Export-Import Bank, the U.S. International Development Finance Corporation, the U.S. Trade and Development Agency, the Department of State, the Department of the Treasury, the Department of Commerce, and the Department of Energy (including the U.S. Energy Information Administration) also contributed time, wisdom, and data, in some cases over the course of several years, in support of this project and others upon which it rests. Further thanks are due to Shayerah Ilias Akhtar, Lynn Cunningham, Rachel Eck, Heather Greenley, Mark Holt, Marc Humphries, Paul Parformak, Raj Gnanarajah, Andres Schwarzenberg, Keri Stophel, and Martin Weiss of the Congressional Research Service.

REFERENCES:

[1] Most recently, see Senator Lisa Murkowski, *"With Powers So Disposed": America and the Global Strategic Energy Competition* (July 11, 2019), available in Appendix I. See also Senator Lisa Murkowski, *Energy 20/20: A Blueprint for America's Energy Future* (February 4, 2013), and the series of white papers that followed: *The Narrowing Window: America's Opportunity to Join the Global Gas Trade* (August 6, 2013), *Powering the Future: Ensuring That Federal Policy Fully Supports Electric Reliability* (February 11, 2014), *The Energy-Water Nexus: Interlinked Resources That Are Vital For Economic Growth and Sustainability* (May 6, 2014), *A Signal to the World: Renovating the Architecture of U.S. Energy Exports* (July 7, 2014), and, with Senator Tim Scott, *Plenty at Stake: Indicators of American Energy Insecurity* (September 18, 2014).

[2] For example, the Trans-Alaska Pipeline System—explicitly authorized by Congress and President Nixon in 1973—is the quintessential embodiment of "critical infrastructure." The Kenai LNG export facility, the first of its kind constructed in the United States, was approved by the now-defunct Federal Power Commission in 1967 (37 F.P.C. 777). Innovative drilling techniques have been employed for decades on the North Slope, "well" before their adoption in the continental "Lower 48" states, in places such as the Alpine and Kuparuk fields. Thanks are due to Phillip Brown and Paul Parformak of the Congressional Research Service and David Houseknecht of the U.S. Geological Survey.

[3] The text of these agreements is available in Appendix II.

[4] Energy Information Administration, *Monthly Energy Review*, Table 1.4c Primary Energy Net Imports by Source.

[5] All Annual Energy Outlooks are available on the EIA website.

[6] The National Nuclear Security Administration's budget comprises roughly half of total DOE funding. Its Defense Nuclear Nonproliferation programs, which are focused largely overseas, received approximately $2.2 billion in enacted FY 2020 appropriations, a sum that dwarfs DOE "non-defense" international activities by nearly two orders of magnitude. DOE's Office of International Affairs received approximately $27 million in enacted FY 2020 appropriations. Various government-owned, contractor-operated DOE laboratories, including the Pacific Northwest National Laboratory, National Renewable Energy Laboratory, Idaho National Laboratory, and Argonne National Laboratory, maintain international affairs offices. As may be expected, the Department of the Interior's global footprint is relatively small in comparison. Nonetheless, DOI's Office of Insular Affairs carries out federal responsibilities in U.S. territories (American Samoa, the U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands) and freely associated states (Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau). The U.S. Geological Survey routinely publishes data and analysis on global minerals markets and resources. The Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement periodically engage with international counterparts. The Fish & Wildlife Service, which deploys personnel overseas, received approximately $19 million in enacted FY 2020 appropriations for combating wildlife trafficking and other missions. Even the National Park Service received approximately $1.9 million in enacted FY 2020 appropriations for international activities, including border security, historic preservation, and conservation.

[7] See *The Domestic and Global Energy Outlook from the Perspective of the International Energy Agency: Hearing Before the S. Comm. on Energy and Nat. Res.,* 115th Cong. (2018) (statement of Dr. Fatih Birol, Executive Director, International Energy Agency); *IEA's World Energy Outlook: Hearing Before the S. Comm. on Energy and Nat. Res.,* 116th Cong. (2019) (statement of Dr. Fatih Birol, Executive Director, International Energy Agency); *Energy Outlook of the U.S. from the Perspective of IEA: Hearing Before the S. Comm. on Energy and Nat. Res.,* 116th Cong. (2020) (statement of Dr. Fatih Birol, Executive Director, International Energy Agency); *The Energy Information Administration's Annual Energy Outlook for 2015: Hearing Before the S. Comm. on Energy and Nat. Res.,* 114th Cong. (2015); *The Near-Term Outlook for Energy and Commodity Markets: Hearing Before the S. Comm. on Energy and Nat. Res.,* 114th Cong. (2016); *Outlook for Energy and Minerals Markets in the 116th Congress: Hearing Before the S. Comm. on Energy and Nat. Res.,* 116th Cong. (2019); *S. 33, The LNG Permitting Certainty and Transparency Act: Hearing on S. 33 Before the S. Comm. on Energy and Nat. Res.,* 114th Cong. (2015); *The Role of U.S. Liquefied Nat-*

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[8] There is no universally accepted definition of "strategic energy." In contrast, "strategic minerals" (commonly referred to as "critical minerals") are generally understood. "Strategic energy management," a business practice term, refers to certain processes related to energy performance, usage, and efficiency, and is quite distinct from the concept of "strategic energy" developed in this report. Strategic energy should be understood as both an organizing principle and as a motivating principle. It is fundamentally concerned with the capabilities of the United States to engage successfully in international economic competition and should not be reduced to, or confused with, the related but distinct concepts of critical infrastructure, cybersecurity, and grid reliability.

[9] Bilateral memoranda abound across the Federal Government. The Department of Energy's Office of Fossil Energy, for example, maintains memoranda of understanding with Australia, Canada, the European Commission, Japan, India, Indonesia, Mexico, Norway, Saudi Arabia, South Korea, the United Arab Emirates, and the United Kingdom. The Office of Nuclear Energy maintains memoranda of understanding with China, the Czech Republic, the European Atomic Energy Community (Euratom), France, Italy, Japan, Jordan, Mongolia, Russia, South Africa, South Korea, Spain, and the United Kingdom.

[10] More idiosyncratic incarnations also exist, such as the U.S.-Israel Energy Center (established by Pub. L. No. 113–296, 128 Stat. 4075 (2014)).

[11] In the interest of full disclosure, Committee professional staff member Tristan Abbey helped draft these two agreements while assigned, in a previous capacity, to the National Security Council.

[12] In any event, the Australia-U.S. agreement does not explicitly mention strategic petroleum stocks as an action item.

[13] Export-Import Bank of the United States, *Report to the United States Congress on Global Export Credit Competition*, June 2020, p. 38.

[14] See also the following reports prepared by the Republican staff of the U.S. Senate Energy and Natural Resources Committee: *Cross Currents: Iranian Oil and the U.S. Export Ban* (June 23, 2015); *Rendering Vital Assistance: Allowing Oil Shipments to U.S. Allies* (June 9, 2015); *A Ban for One: The Outdated Prohibition on U.S. Oil Exports in Global Context* (June 26, 2014); *Crude Pro Quo: The Use of Oil Exchanges to Increase Efficiency* (May 22, 2014); *License to Trade:*

Commerce Department Authority to Allow Condensate Exports (April 2, 2014); and *Past is Precedent: Executive Power to Authorize Crude Oil Exports* (March 3, 2014).

[15] For the Eurasian energy project exception, see Pub. L. 116–94 (22 U.S.C § 9563).

[16] Department of Energy, 10 CFR Part 590, *Small-Scale Natural Gas Exports*, 83 Fed. Reg. 35106 (July 25, 2018).

[17] U.S. International Development Finance Corporation, *Modernizing DFC's Nuclear Energy Policy: Conclusion of 30-day Public Notice and Comment Period*, July 23, 2020. Senator Murkowski's letter to the DFC about this topic is available in Appendix III.

[18] Export credit rulemaking is facilitated by the Organization for Economic Cooperation and Development (OECD). The authority vested in the President by Section 11 of the Export-Import Bank Reauthorization Act of 2012 (12 U.S.C. § 635a–5), as amended, to negotiate an end to export credit financing is delegated to the Secretary of the Treasury. Thanks are due to Raj Gnanarajah of the Congressional Research Service.

[19] As reflected in the active statutes (42 USC § 16511 et. seq.), eligible projects must (1) avoid, reduce or sequester air pollutants or anthropogenic emissions of greenhouse gases; and (2) employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued. These two requirements would have to be met before a critical minerals project could be considered for a loan guarantee. Statutes also include a list of eligible project categories (§ 16513(b)). Critical minerals are not specifically included in the project category list. Thanks are due to Phillip Brown of the Congressional Research Service. The interagency report, *A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals*, is available on the Department of Commerce website.

[20] Section 123 of the Atomic Energy Act of 1954, as amended (P.L. 83–703; 42 U.S.C. § 2153), prohibits significant U.S. nuclear cooperation with other countries without the implementation of a peaceful nuclear cooperation agreement (a "123" agreement). Nuclear Cooperation Memoranda of Understanding (NCMOUs) are the products of a State Department diplomatic initiative designed to "develop strategic civil nuclear cooperation relationships" with other countries and potentially lay the groundwork for 123 agreements. NCMOUs do not by themselves allow for the transfer or export of special nuclear materials or reactors and components. The State Department notes that "while 123 agreements are legally binding and are shaped by legal requirements, NCMOUs are not legally binding and can be more flexible and strategic in their content." Thanks are due to Mark Holt of the Congressional Research Service.

[21] Senator Murkowski's letters to the Saudi Crown Prince Mohammad bin Salman, Secretary of State Mike Pompeo, and Secretary of Commerce Wilbur Ross are available in Appendix III.

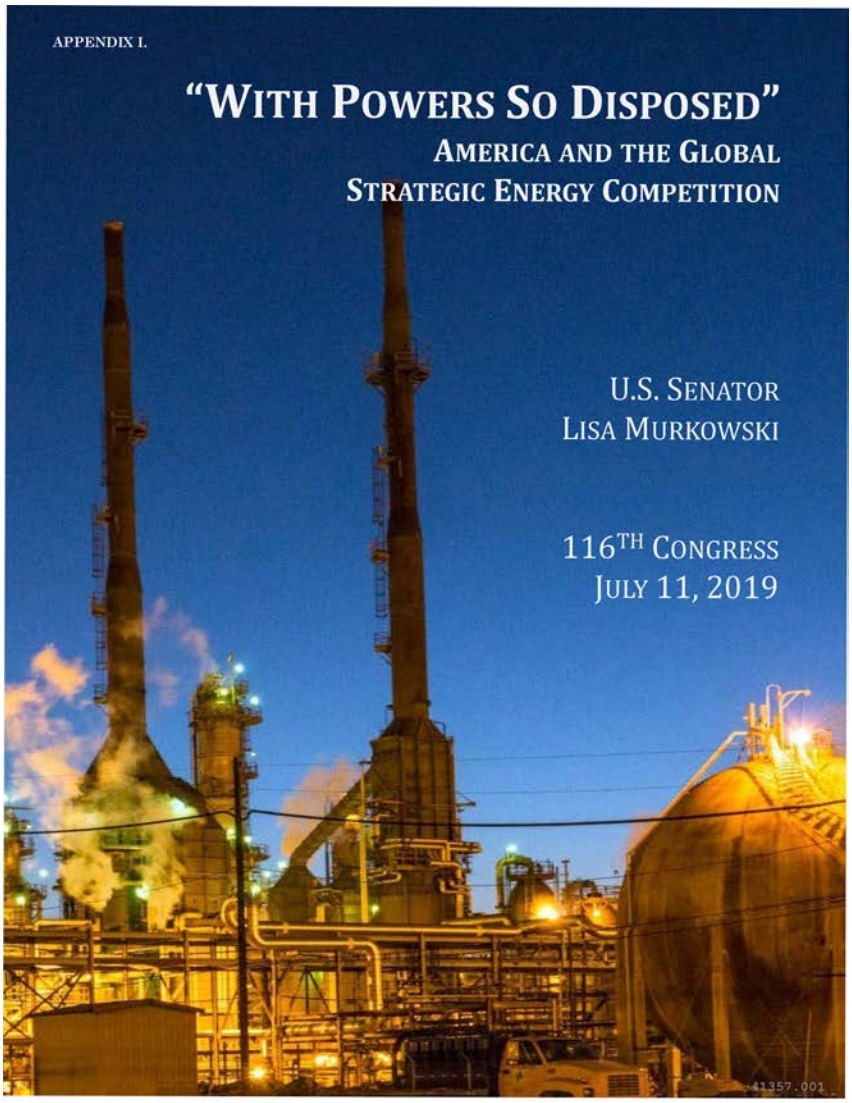
[22] Official prints of these hearings are not yet available.

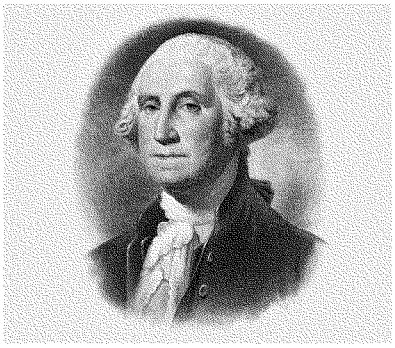
[23] The temporary storage program secured 21 million barrels, or 70 percent, of its 30 million barrel availability. Of an initial solicitation to purchase 1 million barrels, DOE purchased 126,000 barrels.

[24] Senator Murkowski's letter to Secretary Mnuchin is available in Appendix III. For the CARES Act provisions, see Section 4003 of Title IV, Subtitle A of P.L. 116–136, Coronavirus Economic Stabilization Act of 2020.

[25] *Energy Outlook of the U.S. from the Perspective of IEA: Hearing Before the S. Comm. on Energy and Nat. Res.,* 116th Cong. (2020) (statement of Dr. Fatih Birol, Executive Director, International Energy Agency).

APPENDIX I.


"WITH POWERS SO DISPOSED"
AMERICA AND THE GLOBAL
STRATEGIC ENERGY COMPETITION
U.S. SENATOR
LISA MURKOWSKI
116TH CONGRESS
JULY 11, 2019
41357.001



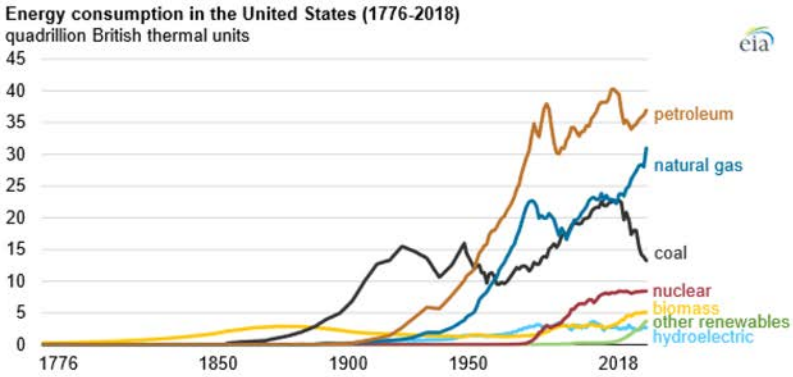
PRESIDENT GEORGE WASHINGTON
FAREWELL ADDRESS
SEPTEMBER 19, 1796

"[O]ur commercial policy should hold an equal and impartial hand . . . diffusing and diversifying by gentle means the streams of commerce, but forcing nothing . . . establishing (WITH POWERS SO DISPOSED, IN ORDER TO GIVE TRADE A STABLE COURSE, TO DEFINE THE RIGHTS OF OUR MERCHANTS, AND TO ENABLE THE GOVERNMENT TO SUPPORT THEM) conventional rules . . . the best that present circumstances and mutual opinion will permit . . . temporary, and liable to be from time to time abandoned or varied, as experience and circumstances shall dictate . . . . "

INTRODUCTION

A Central Position

The President's *National Security Strategy* accurately refers to "America's central position in the global energy system as a leading producer, consumer, and innovator."[1] Previous generations strived to achieve the status we now enjoy, using all types of fuel to propel the economic growth of a superpower. Logistical networks and world-class infrastructure enabled this expansion.



Source: U.S. Energy Information Administration

The Competitive Environment

Some countries may generate or utilize more units of a particular type of energy than we do, but no nation delivers as much energy to as many people, as efficiently, safely, and cleanly – with as much productive effect – as the United States. Despite our dominant place, other countries – allies, trading partners, great powers, rivals – are working hard to secure their own positions of strength within that global energy system. Markets are dynamic and rankings are not static. Americans must compete every day for our prosperity.

---

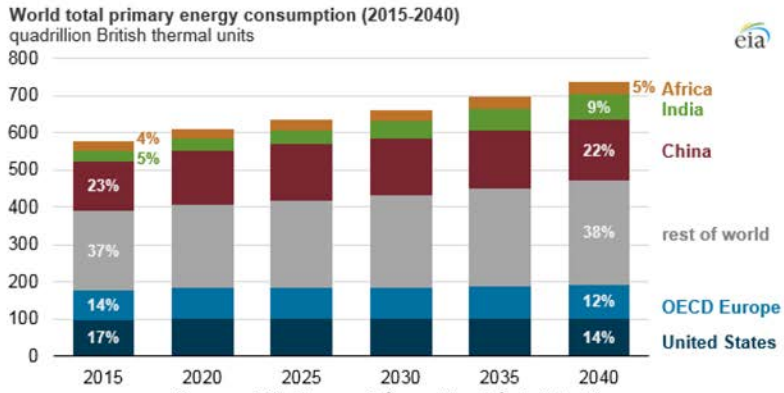
[1] *National Security Strategy of the United States of America* (The White House, December 2017), p. 22: https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf.

ASSESSMENT

A Signal to the World

Over the past decade, the United States energy sector has sent a "signal to the world."[2] Executive and legislative action renovated the architecture of American energy – streamlining the regulatory review of natural gas exports, lifting the de facto ban on crude oil exports, opening up new areas in Alaska and the Outer Continental Shelf for development, investing in innovative advanced nuclear reactors, and much else. We produce (96 quadrillion Btu), consume (101 quadrillion Btu), and trade (46 quadrillion Btu) more energy than ever before.[3]

This revolution has occurred as regions outside of North America dominate worldwide energy consumption growth, a trend which suggests a global approach to the nation's energy future may be required.



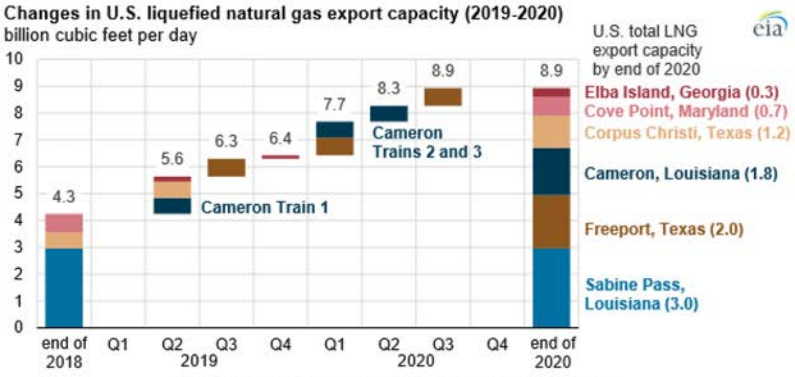
Source: U.S. Energy Information Administration

[2] U.S. Senator Lisa Murkowski, *A Signal to the World: Renovating the Architecture of U.S. Energy Exports* (January 7, 2014). See also the following reports prepared by the Republican staff of the U.S. Senate Energy and Natural Resources Committee: *Cross Currents: Iranian Oil and the U.S. Export Ban* (June 23, 2015); *Rendering Vital Assistance: Allowing Oil Shipments to U.S. Allies* (June 9, 2015); *A Ban for One: The Outdated Prohibition on U.S. Oil Exports in Global Context* (June 26, 2014); *Crude Pro Quo: The Use of Oil Exchanges to Increase Efficiency* (May 22, 2014); *License to Trade: Commerce Department Authority to Allow Condensate Exports* (April 2, 2014); and *Past is Precedent: Executive Power to Authorize Crude Oil Exports* (March 3, 2014).

[3] U.S. Energy Information Administration, Table 1.1 Primary Energy Overview, *Monthly Energy Review* (June 2019). "Trade" includes the gross sum of imports and exports.

Long-Term Relationships

The signal our nation sends to the world must be followed by tangible results. Memoranda of understanding can be important, but tangible deals with secured financing, offtake agreements, and delivered cargoes are what guarantee jobs for Americans. Trade in raw commodities provides considerable economic benefit, and building terminals, processing plants, ports, and other infrastructure – domestically and internationally – offers innumerable cumulative gains.

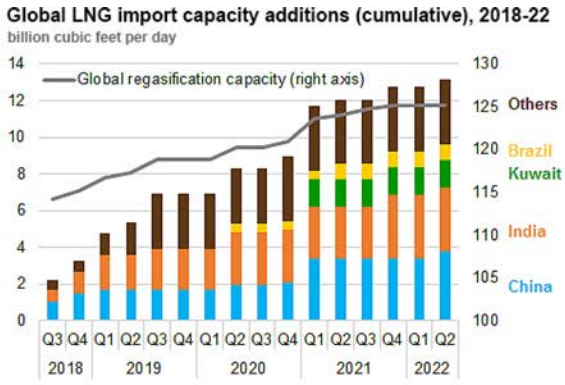


Source: U.S. Energy Information Administration

Case Studies: Natural Gas and Civil Nuclear

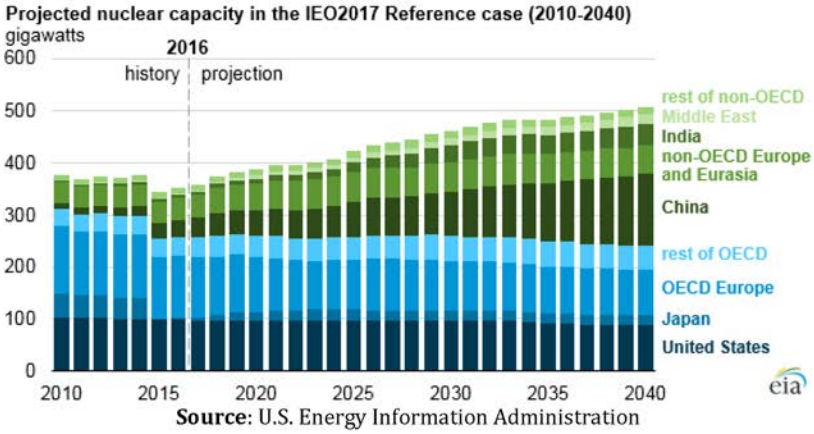
Energy-based prosperity requires long-term investments and relationships, which ultimately form the basis for any enhancement to our national security. For example:

(1) Natural gas liquefaction and regasification facilities require decadal contracts, billions of dollars, and years of permitting and construction. Potential customers with which strategic relationships are critical abound in the Indo-Pacific region.



Source: U.S. Energy Information Administration

(2) Civil nuclear projects are impossible without diplomatic ("123") agreements and often require substantial government-backed financing. The relationships that develop from such projects provide decades of further partnership.



Source: U.S. Energy Information Administration

THE STRATEGIC ENERGY INITIATIVE

In his Farewell Address, President George Washington extolled the virtues of free trade and noted the natural industriousness of the nation. He cautioned that such trade should follow a "stable course" within a flexible set of rules. This adaptive architecture would change "as experience and circumstances" warrant. It is time for the United States government to refine its instruments of national power, "with powers so disposed," to strengthen the ability of the American people to compete fairly in the global energy system.[4]

The *Strategic Energy Initiative* will sharpen and direct our tools of energy-related economic statecraft to enhance the geopolitical posture of the United States. These tools include federal departments and agencies, such as the Department of Energy, and trade and finance-related institutions such as the Trade Development Agency, the Export-Import Bank, and the Development Finance Corporation (as it evolves from the Overseas Private Investment Corporation). Congress is uniquely positioned to provide strategic direction through its constitutional responsibilities of oversight and legislation. By focusing on long-term relationships, tightly within the nexus of raw commodities and infrastructure domestically and internationally, the nation will enhance its security, improve its balance of trade, and secure America's position at the center of the global energy system.

CONCLUSION

The strategic environment is a competitive environment. Expanding the global reach of American energy requires a robust *strategy* that harnesses our Nation's vast *means* in effective *ways* to achieve secure and prosperous *ends*. The Strategic Energy Initiative seeks to accomplish just that.

ACKNOWLEDGMENTS

The cover image is a portion of a photograph taken by Carol M. Highsmith, "Dusk view of the Valero Energy Corporation's refinery in Port Arthur, Texas." Dated February 27, 2014, it is provided by the Library of Congress: https://www.loc.gov/item/2014633835/. The official engraved portrait of President George Washington is provided by the United States Mint.

[4] Farewell Address (1796), United States Senate Historical Office (Senate Document No. 106-21).

APPENDIX II.

Text of the Japan-United States Strategic Energy Partnership (JUSEP)

Leaders of Japan and the United States launched the Japan-United States Strategic Energy Partnership (JUSEP) within the framework of the Japan-United States Economic Dialogue.

1. Core principles:
   (1) Open and competitive energy markets are indispensable to ensuring secure energy supply; and
   (2) Universal access to affordable and reliable energy is needed to help eradicate poverty, fuel economic growth, and increase global security.
2. Priorities for the 2017–2018 JUSEP work plan:
   (1) Promotion of advanced nuclear technologies that are safer and more proliferation resistant;
   (2) Deployment of highly efficient, low emissions (HELE) coal technologies, including CCUS;
   (3) Development of a global market for natural gas; and
   (4) Energy infrastructure development in the developing world that promotes regional integration; adheres to principles of good governance, respect for the interests of all stakeholders, and transparency in bidding and financing; and expands access to the global energy market.
3. Important geographic regions, including:
   (1) Southeast Asia
   (2) South Asia
   (3) Sub-Saharan Africa

[Announced on November 6, 2017.]

Text of the Australia-U.S. Strategic Partnership on Energy in the Indo-Pacific

Leaders of Australia and the United States to launch an Australia-U.S. Strategic Partnership on Energy in the Indo-Pacific. The partnership aligns the goals of Australia's Foreign Policy White Paper and the U.S. National Security Strategy, including to promote regional infrastructure and energy cooperation, open and competitive energy markets and improved rules and standards in the Indo-Pacific.

Core Principles

- Open and competitive energy markets are indispensable to ensuring secure energy supply.
- Universal access to affordable and reliable energy from a variety of sources is needed to help eradicate poverty, fuel sustainable economic growth, and increase global security.

Priorities for the 2018–2019 Work Plan for the Partnership

- Energy infrastructure development in the Indo-Pacific, including a focus on the developing world, that promotes regional in-

tegration; adheres to principles of good governance, respect for the interests of all stakeholders, and transparency in bidding and financing; and expands access to the global energy market.
- Deployment of low emissions technologies which support the secure, reliable, affordable and sustainable supply of energy in the Indo-Pacific.
- Strengthening the development of open and rules-based global markets for natural gas.

Important Geographic Regions

- Southeast Asia
- South Asia
- Southwest Pacific

[Announced on February 23, 2018.]

APPENDIX III.

United States Senate
WASHINGTON, DC 20510

October 24, 2019

The Honorable Adam Boehler
Chief Executive Officer
U.S. International Development Finance Corporation
1100 New York Avenue NW
Washington, DC 20527

Dear Mr. Boehler:

The United States currently occupies a central position in the global energy system, and its highly dynamic and competitive environment requires sharpened tools of economic statecraft. We face a number of challenges and opportunities in the global energy arena. To remain competitive, the United States needs new strategic direction focused on long-term relationships within the nexus of raw commodities and infrastructure. The new U.S. International Development Finance Corporation (DFC) has the potential to play a critical role in this effort.

Another crucial objective, shared by the Administration, is the revival of U.S. civil nuclear capabilities. Russia and China are increasingly using nuclear reactors as a tool for geopolitical purposes, signing cooperation agreements and export deals that may mark the beginning of 100-year commercial and security relationships with developing countries. Instead of competing against Russia and China, The DFC's predecessor, the Overseas Private Investment Corporation (OPIC) maintained a "categorical prohibition" against supporting civil nuclear energy projects, effectively ceding the field to our rivals.

Such a policy sends a harmful signal that American primacy in the civil nuclear sector is waning. As you know, the prohibition stems from an internal Environmental and Social Policy Statement reaffirmed by OPIC as late as January 13, 2017, a mere week before the inauguration of President Trump. This policy must be rectified. In a global energy landscape in which we are competing with Russia and China for the future of nuclear leadership, our nation's premier development finance institution must encourage, not prohibit, the adoption of American technologies and safeguards. Advanced nuclear technologies that are right-sized for developing countries are under development in the U.S. and should be under consideration.

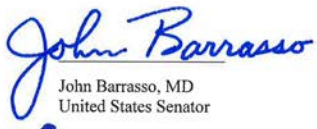
We encourage you to take all steps necessary to reverse OPIC's ban on civil nuclear energy and to ensure that the DFC will be free to pursue a genuinely strategic energy portfolio once it is established. Please share updates with our offices and staff.

Sincerely,

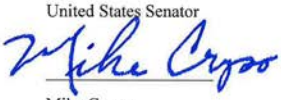
Lisa Murkowski
United States Senator

Joe Manchin III
United States Senator

Kevin Cramer
United States Senator



John Barrasso, MD
United States Senator



Mike Crapo
United States Senator

Lindsey O. Graham
United States Senator

United States Senate
WASHINGTON, DC 20510

March 20, 2020

The Honorable Wilbur Ross
U.S. Department of Commerce
1401 Constitution Ave NW
Washington, D.C. 20230

Dear Secretary Ross,

We write urging you to investigate the excessive dumping of crude oil by the Kingdom of Saudi Arabia and the Russian Federation and develop a swift reply. As you know, the global oil market is in disarray in large part as a result of the recent actions taken by Saudi Arabia and Russia to flood the oil market with an unprecedented supply of crude. This manipulation of markets has roiled the economy, causing severe trauma to the American energy industry. It is essential that the American government respond with decisive action.

We are deeply concerned about the inevitable loss of American jobs and investment in our nation's energy infrastructure as a result of this price war. We applaud President Trump and his Administration's historic success in securing America's energy independence; however, it is essential to America's national security interests that actions like those of Saudi Arabia and Russia be addressed.

The global economy is already suffering as a result of the pandemic caused by COVID-19, and these actions taken by Saudi Arabia and Russia have added further unprecedented hardship on American oil and gas producers and the thousands of blue-collar workers they employ. It is fundamentally important that the Department of Commerce investigate the actions of these foreign nations to weaken America's energy independence. As Secretary, all of your authorities related to imports, national security, and safeguards should be considered for the most appropriate and expeditious response.

We appreciate your consideration of this request and look forward to continuing our shared commitment of supporting a strong, robust American economy.

Sincerely,

James M. Inhofe
United States Senator

Roger F. Wicker
United States Senator

Kevin Cramer
United States Senator

Lisa Murkowski
United States Senator

John Barrasso, M.D
United States Senator

Dan Sullivan
United States Senator

James Lankford
United States Senator

M. Michael Rounds
United States Senator

John Hoeven
United States Senator

Congress of the United States

Washington, DC 20510

April 1, 2020

The Honorable Steven Mnuchin
Secretary of the Treasury
U.S. Department of the Treasury
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Dear Secretary Mnuchin:

Thank you for your efforts to develop and negotiate the Coronavirus Aid, Relief, and Economic Security (CARES) Act. This legislation is the cornerstone of our unprecedented national response to the coronavirus pandemic and its human and economic consequences.

It is important that the CARES Act be implemented in a way that provides critically needed liquidity and financing to American businesses, including the oil and gas producing companies that form the backbone of our national and energy security.

Section 4003 of the CARES Act provides your Department with significant discretion to support many of the businesses that would otherwise never need or be eligible for federal loans, but that are currently threatened by liquidity freeze-ups. As you work to urgently develop an implementing framework, I write to emphasize four aspects of the present situation.

First, many industries are facing unprecedented challenges that will hopefully be short-term and mitigated by the programs in the CARES Act. There is no question that one of the hardest-hit industries – and one of the most critical to Alaska – is the oil and gas sector. Producing companies and the businesses that contract with them are being impacted not only by the market demand shock from the coronavirus, but also the Russia-Saudi Arabia power struggle against American energy.

Second, the President has stressed the importance of supporting industries with employees and footprints across the country. This includes the oil and gas sector, which by one estimate supports more than 10 million American jobs. Both regulations and discretionary decisions must ensure businesses operating or based in Alaska and other rural states can be fully considered for loans made available under the CARES Act.

Third, credit is uniquely frozen for oil and gas companies given the dual nature of the short-term supply and demand shocks they are facing. The financing of many international oil and gas companies is constrained and for some, credit is likely unavailable. In a stable price environment, these companies have significant potential to continue to be profitable businesses. To get through this time, however, it is critical that they be able to fully participate in the Section 4003 loan programs.

Finally, I ask that you utilize these loans to promote job development in a number of ways, including to finance exploration projects on the brink of full-scale development. This is the kind

of job-boosting activity that will restart our economy and is an important part of any portfolio that seeks to stabilize the businesses of today.

Again, thank you for your continued work and commitment as we address this difficult time in our country. This strong legislation, coupled with robust implementation, will be a critical step to turning the tide. I stand ready to support you as you move forward with these programs.

Sincerely,

Lisa Murkowski
United States Senator

Congress of the United States
Washington, DC 20510
March 25, 2020

The Honorable Mike Pompeo
Secretary of State
U.S. Department of State
2201 C St NW
Washington, DC 20230

Dear Secretary Pompeo:

The Kingdom of Saudi Arabia and the Russian Federation have embarked upon economic warfare against the United States. We choose that term carefully and understand the full weight of its meaning.

During this time of pandemic and global economic crisis, the Kingdom of Saudi Arabia has chosen to settle scores in the oil market. Riyadh's motivation may be multi-faceted – to punish the Russians, to capture near-term market share, to destabilize long-term investment in American energy – but the end result is the same. Our nation's energy dominance, which President Trump has carefully nurtured over the past three years, is now under direct threat from a country that professes to be our ally.

The Kingdom of Saudi Arabia must change course. The American people grow weary of providing for the defense of Saudi Arabia – with military financing and weapons sales, logistics and intelligence-sharing, and the deployment of our men and women in uniform. This relationship will be difficult to preserve if turmoil and hardship continue to be intentionally inflicted on the small- and medium-sized American companies that are the heart of our nation's energy abundance. By taking advantage of a confusing situation and desperate time, the Kingdom risks its bilateral relationship with the United States.

An alternative path to a brighter future remains open, if only the Saudis will take it. The Organization of Petroleum-Exporting Countries is a relic of a cartelized past, one that burdens the Kingdom with free-riders and forces it to shoulder the lion's share of every production decision. Instead of investing in Russian energy projects – which may only deepen Russia's ties to China and provide it with leverage over American allies in Europe – the Kingdom should partner with the United States on strategic energy infrastructure projects across the Indo-Pacific region and in the Americas. Riyadh should leave the antique OPEC cartel immediately and join the United States on the global stage as a free market energy powerhouse.

If the Kingdom foregoes this path, the United States retains enormously powerful tools at our disposal. In addition to the various types of aid and assistance we already provide – none of which should ever be offered perpetually and unconditionally – we are reminded of the levers of statecraft the Administration is empowered to exercise. From tariffs and other trade restrictions to investigations, safeguard actions, sanctions, and much else, the American people are not without recourse.

In addition, following the enactment of S. 2040, the *Justice Against Sponsors of Terrorism Act*, Congress is also willing to contemplate revisiting any relevant antitrust authorities and support for the war in Yemen.

We encourage you, as the nation's chief diplomat, to make this case to the Saudis, and to encourage both Riyadh and Moscow to stop wreaking havoc in global markets—particularly as our nation seeks to address a growing pandemic and avert an economic crisis.

Sincerely,

Lisa Murkowski
United States Senator

Kevin Cramer
United States Senator

Dan Sullivan
United States Senator

James M. Inhofe
United States Senator

John Hoeven
United States Senator

Cindy Hyde-Smith
United States Senator

United States Senate

WASHINGTON, DC 20510

March 16, 2020

H.R.H. Mohammad bin Salman bin Abdulaziz Al Saud
Crown Prince, Prime Minister and Minister of Defense
Council of Ministers of Saudi Arabia
Riyadh, Kingdom of Saudi Arabia

Your Royal Highness,

As the United States and the rest of the world — including the Kingdom of Saudi Arabia — are dealing with COVID-19 pandemic response, mitigation and prevention efforts, the added impact of unsettled global energy markets is an unwelcome development.

The United States has been a strong and reliable partner to the Kingdom for decades. In light of this close strategic relationship, it was greatly concerning to see guidance from the Kingdom's energy ministry to lower crude prices and boost output capacity. This has contributed to a disruption in global oil prices on top of already hard-hit financial markets.

Senior Saudi government leaders have repeatedly told American officials, including us, that the Kingdom of Saudi Arabia is a force for stability in global markets. Recent Saudi actions have called this role into question. We urge the Kingdom to assert constructive leadership in stabilizing the world economy by calming economic anxiety in the oil and gas sector at a time when countries around the world are addressing the pandemic.

We look forward to the upcoming meeting with your Ambassador to the United States, Princess Reema bint Bandar Al Saud to discuss these issues further, and encourage continued dialogue and action on this vital issue.

Sincerely,

Copy to:
Saudi Ambassador to the U.S. Princess Reema bint Bandar bin Sultan bin Abdulaziz Al Saud
U.S. Ambassador to the Kingdom of Saudi Arabia John P. Abizaid
U.S. Secretary of State Michael Pompeo
U.S. Secretary of Energy Dan Brouillette
U.S. National Security Advisor Robert O'Brien
U.S. National Economic Advisor Larry Kudlow

Signature Key:

Dan Sullivan
U.S. Senator

Kevin Cramer
U.S. Senator

Ron Johnson
U.S. Senator

John Cornyn
U.S. Senator

John Kennedy
U.S. Senator

John Hoeven
U.S. Senator

Bill Cassidy, M.D.
U.S. Senator

Lisa Murkowski
U.S. Senator

John Barrasso, M.D.
U.S. Senator

Tom Cotton
U.S. Senator

James Lankford
U.S. Senator

Ted Cruz
U.S. Senator

James M. Inhofe
U.S. Senator

APPENDIX IV.

MEMORANDUM August 25, 2020

Subject: **Strategic Petroleum Reserve: Mandated and Modernization Oil Sales**

From: Phillip Brown, Specialist in Energy Policy, pbrown@crs.loc.gov, 7-7386

This memorandum was prepared to enable distribution to more than one congressional office.

This memorandum provides background and summary information about the U.S. Strategic Petroleum Reserve (SPR), actual and planned congressionally mandated sales of SPR oil stocks used to pay for other legislative priorities, and congressionally authorized SPR oil sales used to pay for modernization of SPR operational facilities. Mandated and modernization SPR oil sales discussed in this memorandum date back to November 2015 with the enactment of the Bipartisan Budget Act of 2015 (P.L. 114-74).[1] Under current law, 271 million barrels of SPR oil either has been or is mandated to be sold during fiscal years 2017 through 2028. These volumes represent approximately 39% of SPR inventories as of the beginning of 2017. Additionally, up to $2 billion dollars of SPR oil is authorized to be sold during fiscal years 2017 through 2022 for modernization activities. For additional research and information about the SPR, mandated oil sales, and modernization oil sales, please contact the author.

The Strategic Petroleum Reserve[2]

The SPR, administered by the Department of Energy (DOE), has played a role in U.S. energy policy since the 1970s. During that time, its primary focus has changed from its original intent as world oil market conditions have changed. Originally, the SPR was intended to offset the market power of cartels and prevent economic damage from oil supply disruption. Due to relatively recent increases in U.S. domestic crude oil production, some stakeholders see less need for an oil stockpile.

The September 14, 2019, oil infrastructure attack in Saudi Arabia,[3] which temporarily disrupted production and processing of approximately 5% of global oil supply, resulted in the largest single-day West Texas Intermediate (WTI, the U.S. domestic oil price benchmark) price increase over the last ten years.[4] This effect on domestic U.S. price levels from a temporary disruption in a foreign country

[1] Congress has directed SPR oil sales in the past to pay for other policy priorities. For example, in the late 1990s Congress directed SPR oil sales with proceeds being used to reduce the budget deficit for fiscal years 1996 and 1997. Additionally, in 1996 Congress approved the sale of SPR crude oil to pay for decommissioning of the Weeks Island SPR storage site.

[2] For additional information about the SPR, see CRS Report R42460, *The Strategic Petroleum Reserve: Authorization, Operation, and Drawdown Policy*, by Robert Pirog.

[3] For additional background about the attack on Saudi Arabia's oil infrastructure, see CRS Insight IN11167, *Attacks Against Saudi Oil Rattle Markets*, by Michael Ratner, Christopher M. Blanchard, and Heather L. Greenley.

[4] Energy Information Administration, *Today in Energy: Saudi Arabia Crude Oil Production Outage Affects Global Crude Oil*

illustrates the integrated and global nature of oil markets. Potential and actual economic dislocation that oil supply disruptions and rapid oil price increases are likely to create are among market conditions the SPR was intended to address. Following the attack in Saudi Arabia, President Trump announced that an SPR release was authorized, if needed. Additionally, the International Energy Agency (IEA), which coordinates IEA member-country strategic stock releases in response to supply disruptions, stated that it was monitoring the situation in Saudi Arabia and indicated that oil markets were adequately supplied with commercial stocks.[5] An emergency drawdown of the SPR in response to events in Saudi Arabia did not occur, and the WTI benchmark price quickly returned to near pre-attack levels.[6]

Events and circumstances in the first quarter of calendar year 2020 shifted interest in the SPR from addressing oil supply disruptions to absorbing and storing oil in response to a largely oversupplied global market.[7] Demand uncertainty from the onset of the COVID-19 pandemic combined with a supply dispute amongst a consortium of countries—including members of the Organization of the Petroleum Exporting Countries (OPEC), led by Saudi Arabia, and a group of non-OPEC countries, led by Russia—known as OPEC-Plus resulted in a severely oversupplied and imbalanced oil market.[8] Oil prices rapidly declined and options to utilize the SPR as a resource to address market conditions were explored by the Administration and Members of Congress. Statutory authorities that would allow the SPR to be used in such a manner are limited. However, in response to market oversupply and declining prices, DOE suspended a planned SPR oil sale, executed "exchange-for-storage" contracts to temporarily store crude oil in SPR facilities, signed lease agreements with foreign countries, and repurposed funds to acquire 126,000 barrels of crude oil.[9]

With relatively little utilization in response to emergency oil supply disruptions caused by economic, political, and military instability, and to some extent natural disasters[10], the SPR has more recently been used as a source of funding for a variety of legislative initiatives. In 2015, Congress began mandating sales of SPR oil. Mandated sales direct the Secretary of Energy to sell a specified quantity of SPR oil. Currently mandated quantities are prescribed for specific fiscal years (FY) from 2017 through 2028. Proceeds from mandated sales are deposited into the general fund of the U.S. Treasury. As of the date of this memorandum, Congress has mandated the sale of 271 million barrels of oil from the SPR during FY 2017 through FY2028, nearly 39% of SPR stocks that were held at the beginning of 2017.

In addition to mandated sales, modernization sales under various laws require the Secretary of Energy to draw down and sell SPR oil with sales restricted by a total dollar amount, rather than volume of oil, from FY2017 through FY2022. Proceeds from these sales are to be deposited in the Energy Security and Infrastructure Modernization Fund (ESIMF). The fund is required by law to be used for construction and maintenance of SPR facilities.[11]

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and Gasoline Prices, September 23, 2019.

[5] International Energy Agency, *IEA Statement on the Situation in Saudi Arabia*, September 14, 2019.

[6] According to Bloomberg L.P., the WTI one-month futures price was $54.85 on September 13, 2019. On September 27, 2019, the WTI one-month futures price ended the trading day at $55.91.

[7] For additional information, see: CRS Insight IN11246, *Low Oil Prices and U.S. Oil Producers: Policy Considerations*, by Phillip Brown and Michael Ratner

[8] For additional information, see: CRS Insight IN11286, *Low Oil Prices: Prospects for Global Oil Market Balance*, by Phillip Brown

[9] For additional information, see: CRS Insight IN11373, *Strategic Petroleum Reserve: Recent Developments*, by Phillip Brown

[10] There has been one SPR emergency drawdown and sale related to a natural disaster, Hurricane Katrina in 2005. However, SPR crude oil exchange agreements—crude oil is released from the SPR and the acquirer agrees to provide the same volume of oil plus some additional barrels back to the SPR at a later date—have been used following hurricanes and other supply disruption events.

[11] Bipartisan Budget Act of 2015, P.L. 114-74.

As of April 8, 2020, the SPR's crude oil inventory totaled approximately 635 million barrels.[12] To date, actual mandated and modernization sales total 60.12 million barrels of oil. Due to differences in legislative requirements for the types of drawdowns, mandated sales and modernization sales are discussed separately.

Mandated Sales

Since 2015, Congress has enacted seven laws mandating the sale of SPR oil:

1. Bipartisan Budget Act of 2015 (P.L. 114-74),
2. Fixing America's Surface Transportation (FAST) Act (P.L. 114-94),
3. 21st Century Cures Act (P.L. 114-255),
4. An act to provide for reconciliation pursuant to titles II and V of the current resolution on the budget for fiscal year 2018 (P.L. 115-97),[13]
5. Bipartisan Budget Act of 2018 (P.L. 115-123),
6. Consolidated Appropriations Act, 2018 (P.L. 115-141),
7. America's Water Infrastructure Act of 2018 (P.L. 115-270).

These mandated sales from the SPR have committed 271 million barrels of oil for sale through FY2028 (**Table 1**). Actual sales to date total 44.78 million barrels (**Table 2**), nearly consistent with the mandated sales required by enacted legislation of 45 million barrels by the end of FY2020. In the 116th Congress, some bills would amend current law and shift the timing of mandated sales. Doing so could result in budgetary effects and offsets for other legislative priorities. Additional information about one bill passed by the Senate (S. 4049, 116th Congress) is available in the **Appendix**.

Table 1. Mandated SPR Sales

(Fiscal Years, Millions of Barrels)

Public Law	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
P.L. 114-74	0	5	5	5	5	8	10	10	10	0	0	0	58
P.L. 114-94	0	0	0	0	0	0	16	25	25	0	0	0	66
P.L. 114-255	10	9	6	0	0	0	0	0	0	0	0	0	25
P.L. 115-97	0	0	0	0	0	0	0	0	0	3.5	3.5	0	7
P.L. 115-123	0	0	0	0	0	7.5	7.5	7.5	7.5	35	35	0	100
P.L. 115-141	0	0	0	5	5	0	0	0	0	0	0	0	10
P.L. 115-270	0	0	0	0	0	0	0	0	0	0	0	5	5
Total	10	14	11	10	10	15.5	33.5	42.5	42.5	38.5	38.5	5	271

[12] SPR inventories in April 2020 represent the approximate amount of SPR oil available to respond to an oil supply emergency. Since April 2020, additional oil barrels have been added to the SPR from "exchange-for-storage" contracts, a 126,000-barrel test purchase, and oil that belongs to Australia through a leasing agreement. With the exception of the test purchase and an unknown quantity of "exchange barrels" that will be acquired through the exchange-for-storage contracts, crude oil volumes in excess of 635 million barrels reflected in SPR storage reports are not part of the emergency oil inventory. U.S. Department of Energy, "Strategic Petroleum Reserve Inventory," at https://www.spr.doe.gov/dir/dir.html, accessed April 8, 2020.

[13] This bill has also been referred to as the tax revision of 2017.

Source: Data are extracted from cited legislation: P.L. 114-74, P.L. 114-94, P.L. 114-255, P.L. 115-97, P.L. 115-123, P.L. 115-141 and P.L. 115-270.

Notes: Table 1 does not include withdrawals for modernization and maintenance as authorized in the Bipartisan Budget Act of 2015. Those withdrawals were specified in dollars, (up to $2 billion during fiscal years 2017 through 2020). Actual and authorized modernization sales for fiscal years 2017 through 2022 are discussed below and are summarized in **Table 3**. P.L. 115-123 stipulates that 30 million barrels be sold between FY2022 and FY2025. For simplicity, those sales are evenly distributed over the four-year period. Timing for these sales could vary from what is presented in this table.

Table 2. Actual Mandated SPR Sales by Fiscal Year

(2017 - 2020)

	2017	2018	2019	2020	Total
Actual Sales (million barrels)	9.89	14.17	10.87	9.85	44.78
Actual Sales (million dollars)	$449.2	$824.8	$745.7	$566.6	$2,586.3

Source: Actual sales from U.S. Department of Energy, "History of SPR Releases," website, accessed February 28, 2020, at https://www.energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve/releasing-oil-spr.

Notes: Status of sales as of January 2020. Numbers in the table are rounded. For additional details about mandated sales, see U.S Department of Energy, "Strategic Petroleum Reserve: Oil Sale Archival Reports," at https://www.spr.doe.gov/doeec/OilSaleArchivalReports/OilSaleArchive.htm, accessed February 28, 2020.

Modernization Sales

Section 404 of the Bipartisan Budget Act of 2015 (P.L. 114-74) authorizes the drawdown and sale of up to $2 billion of SPR crude oil during fiscal years 2017 through 2020. The CARES Act (P.L. 116-136) amended P.L. 114-74 to allow for modernization sales through fiscal year 2022. Sale proceeds are to be deposited in the ESIMF. To date, enacted and amended appropriations legislation allows for up to $1.4754 billion of Section 404 modernization sales through FY2022. Unlike mandated SPR sales, Section 404 sales are limited to allowed dollar values. To date, 15.22 million barrels of crude oil have been sold under Section 404 authority (**Table 3**). Additional barrels are to be sold between FY2020 and FY2022; actual volumes will depend on prevailing oil prices at the time of sale. Statutes that required SPR modernization crude oil sales, and appropriated proceeds to the ESIMF, for FY2017 through FY2022 include the following:

- **2017:** Further Continuing and Security Assistance Appropriations Act, 2017 (P.L. 114-254). Required sales up to $375.4 million.
- **2018:** Consolidated Appropriations Act, 2018 (P.L. 115-141).[14] Required sales up to $350 million.
- **2019:** Energy and Water, Legislative Branch, and Military Construction and Veterans Affairs Appropriations Act, 2019 (P.L. 115-244). Required sales up to $300 million.
- **2020-2022:** Further Consolidated Appropriations Act, 2020 (P.L. 116-94), as amended by P.L. 116-136. Requires sales up to $450 million.

[14] The Bipartisan Budget Act of 2018 (P.L. 115-123) included language amending the Continuing Appropriations Act, 2018 (P.L. 115-56) that required the $350 million SPR modernization sale in FY2018. That enacted provision was superseded by P.L. 115-141.

Table 3. SPR Modernization Sales: Section 404 Authority

(Fiscal Years)

	2017	2018	2019	2020-2022	Total
Authorized Sales (million dollars)	$375.4	$350.0	$300.0	$450.0	$1,475.4
Actual Sales (million barrels)	6.28	4.74	4.20	TBD*	15.22
Actual Sales (million dollars)	$323.2	$347.8	$300.0	TBD*	$971.0

Source: Actual sales from U.S. Department of Energy, "History of SPR Releases," website, accessed January 13, 2020, at https://www.energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve/releasing-oil-spr.

Notes: Actual Sales totals only reflect sales that occurred in fiscal years 2017 through 2019.
* As of the date of this memorandum, FY2020-FY2022 modernization sales have not yet occurred. A Notice of Sale for modernization sales in FY2020 was announced on February 28, 2020. Citing "fluctuations in global oil markets," and as benchmark oil prices were rapidly declining in early March 2020, DOE suspended the sale on March 10, 2020. P.L. 116-136 extended the timeframe for these modernization sales, which must occur by the end of FY2022.

Appendix. Proposed Amendments to SPR Mandated Sales: S. 4049, 116th Congress

The National Defense Authorization Act for Fiscal Year 2021 (S. 4049, 116th Congress), as passed by the Senate, includes a section (Sec. 6706, which is part of Title LXVII—Nuclear Energy Leadership) that would modify the fiscal years (FY) in which some SPR mandated sales are currently scheduled to occur (see **Table A-1**). The total amount of mandated sales would not change. Generally, with the exception of 11 million barrels that would be sold one year earlier, proposed amendments in S. 4049 would shift the timing of mandated sales out to later fiscal years. The largest proposed timing shift includes 82 million barrels currently scheduled to be sold between FY2026 and FY2028 to occur in FY2029 and FY2030. Timing adjustments in S. 4049 would likely have a budgetary effect and could—because of Congressional Budget Office (CBO) oil price assumptions—provide an offset for other provisions contained in Title LXVII. As of the date of this memorandum, CBO has not published a cost estimate for SPR mandated sales amendments contained in S. 4049.[15]

Table A-1. SPR Mandated Sales and Proposed Amendments in S. 4049, 116th Congress by Fiscal Year

Million Barrels

Public Law	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Mandated Sales in Current Law										
P.L. 114-74	8	10	10	10	0	0	0	0	0	**38**
P.L. 114-94	0	16	25	25	0	0	0	0	0	**66**
P.L. 115-97	0	0	0	0	3.5	3.5	0	0	0	**7**
P.L. 115-123	7.5	7.5	7.5	7.5	35	35	0	0	0	**100**
P.L. 115-270	0	0	0	0	0	0	5	0	0	**5**
Total	**15.5**	**33.5**	**42.5**	**42.5**	**38.5**	**38.5**	**5**	**0**	**0**	**216**
Mandated Sales Including Proposed Amendments in S. 4049, 116th Congress										
P.L. 114-74	8	0	10	20	0	0	0	0	0	**38**
P.L. 114-94	11	0	30	25	0	0	0	0	0	**66**
P.L. 115-97	0	0	0	0	0	0	0	0	7	**7**
P.L. 115-123	7.5	0	7.5	15	0	0	0	30	40	**100**
P.L. 115-270	0	0	0	0	0	0	0	0	5	**5**
Total	**26.5**	**0**	**47.5**	**60**	**0**	**0**	**0**	**30**	**52**	**216**

Source: CRS analysis of enacted laws and proposed legislation as referenced in the Table.

Notes: The table only reflects public laws and fiscal years affected by proposed amendments contained in S. 4049 as passed by the Senate on July 23, 2020.

[15] In March 2020, CBO published a cost estimate for similar SPR mandated sales amendments. For additional information, see: Congressional Budget Office, "An Amendment to S. 2657, American Energy Innovation Act of 2020," Cost Estimate, March 2, 2020, at https://www.cbo.gov/publication/56218.